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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/560,682	FONTIJN ET AL.
	Examiner	Art Unit
	Hal Schnee	2186

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 14 December 2005.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-26 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 14 December 2005 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____	6) <input type="checkbox"/> Other: _____

DETAILED ACTION

1. Claims 1-26 are pending in this application.

Oath/Declaration

2. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

It does not state that the person making the oath or declaration acknowledges the duty to disclose to the Office all information known to the person to be material to patentability as defined in 37 CFR 1.56.

The statement currently recites a duty to disclose “all information which is material to the examination of this application...” The word “examination” needs to read “patentability.” The duty to disclose statement also needs to reference the entire rule “37 CFR 1.56,” not only section 1.56(a) of the rule.

Specification

3. The disclosure is objected to because of the following informalities:

Page 2, lines 18-26 make several references to “PD.” This abbreviation is never defined in the present disclosure, which elsewhere makes use of “PB,” an abbreviation of “Portable Blue” (p. 1, line 8 and p. 2, line 19, for example). This makes “PD” appear to be an error.

Page 17, line 25 refers to “disc management area DN.” DN is elsewhere referred to as “disc navigation area” (e.g. p. 17, line 31).

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 3, 4, 9, 10, 13, 14, and 26 are rejected under 35 U.S.C. 102(e) as being anticipated by Heo et al. (U.S. Patent 6,901,210, hereafter “Heo”).

6. Claim 1 is being treated under 35 U.S.C. 112, sixth paragraph as it invokes means-plus-function language as described in MPEP § 2181.

Regarding Claim 1, Heo teaches A drive device for providing access to a record carrier (fig. 3; col. 4, lines 39-45), said drive device comprising access means for providing at least one of a read access and a write access to at least one predetermined parameter written on a predetermined navigation area (DN) on said record carrier, said at least one predetermined parameter specifying at least one of a logical format and an application format used on said record carrier (fig. 2; col. 4, lines 25-38—the lead-in area, logical volume area, and UDF file system together constitute a predetermined navigation area. The CD and DVD formats are both logical and application formats).

Regarding Claim 3, Heo teaches said at least one predetermined parameter comprises a partition descriptor information (PD) for specifying at least one of a nature of each partition on

said record carrier, a type of each partition on said record carrier, a space associated with each partition on said record carrier, a fragment allocation to each partition on said record carrier, and specific rules for recording on each partition on said record carrier (col. 4, lines 5-24—the CD session and CD-ROM session constitute different partitions; the parameters specify recording formats such as the DVD/UDF format, which includes specific rules for recording on each partition).

Regarding Claim 4, Heo teaches said access means is configured to provide at least one of a read access and a write access to an application use area (AUA) provided in said navigation area for storing an application specific information available to at least one of a physical layer, a logical layer and an application layer of said drive device (col. 5, line 61-col. 6, line 4—the DVD Application area in fig. 2 is an application use area in the navigation area, which the device can read for application specific information, such as determining the type of file system; this section describes access through the differentiation signal {physical layer} and DVD application formatter {application layer}).

Regarding Claim 9, Heo teaches said access means is arranged to use said navigation area (DN) for reserving space in a program area of said record carrier for specific file systems, allocation classes or applications (fig. 2; col. 4, lines 5-24—the navigation area reserves space for an audio CD application and a DVD application, with different file systems for each application).

Regarding Claim 10, Heo teaches said access means is arranged to use said navigation area (DN) for assigning properties or attributes to said reserved space (fig. 2; col. 4, lines 5-24—the file formats applied to the reserved space is a property of the space).

Regarding Claim 13, Heo teaches said access means is arranged to use said navigation area (DN) for selecting an application class for an application (col. 5, lines 21-30—the navigation area is read to determine which application class is to be used to access the data on the disc—CD audio, CD video, CD-ROM, etc.).

Regarding Claim 14, Heo teaches said access means is arranged to write to said navigation area (DN) a location information of data accessed at a rate higher than a predetermined number or an access pattern information for sequential data retrieval (col. 6, lines 43-56—the drive reads the navigation area to determine if the rate for data retrieval is higher than a predetermined number, e.g. 8 times that of an audio CD. Since Heo also writes to the navigation area as described above, he teaches writing the rate information to the navigation area).

Regarding Claim 26, Heo teaches a method of reading from or writing to a record carrier (Abstract, lines 1-3), said method comprising the steps of:

- a) providing on said record carrier a predetermined navigation area (fig. 2; col. 4, lines 25-38—the lead-in area, logical volume area, and UDF file system together constitute a predetermined navigation area);
- b) writing on said navigation area (DN) at least one predetermined parameter specifying at least one of a logical format and an application format used on said record carrier (fig. 2; col. 4, lines 25-38—the CD and DVD formats are both logical and application formats); and
- c) using said at least one predetermined parameter for at least one of a read access and a write access to said record carrier (col. 5, line 61-col. 6, line 4—the device uses the parameter to

determine which application and data format apply to the record carrier, and then reads and decodes the data).

7. Claims 21-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Acker (U.S. 2002/0181376).

Regarding Claim 21, Acker teaches a record carrier for storing data on an information area (IA) thereof (Abstract, lines 1-2), wherein said information area comprises a navigation area (DN) for storing at least one predetermined parameter specifying at least one of a logical format and an application format used on said record carrier (¶ [0004], lines 16-27—there is a pointer in the lead-in area which points to the lead-out area, which in turn points to the start of the data for a session; sessions are separate areas on the record carrier. The lead-in area thus comprises a navigation area).

Regarding Claim 22, Acker teaches said navigation area (DN) is arranged in a lead in area (LI) of said information area (IA) (¶ [0004], lines 16-27, as for Claim 21, above).

Regarding Claim 23, Acker teaches sessions provided in said information area (IA) are written without separate lead-in and lead-out area (fig. 19; ¶ [0176]—only the first session has a lead-in area, and only the last session has a lead-out area).

Regarding Claim 24, Acker teaches sessions provided in said information area (IA) have a granularity of one fragment (¶ [0038] and fig. 12, ¶ [0121]-[0126]—a fragment can be defined as any number of ECC blocks according to the present disclosure; the Session Map Block shown and described here can be considered a fragment, and sets the granularity of a session).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 2, 5, 7, 8, 11, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heo (U.S. Patent 6,901,210), as applied to Claims 1 and 9, above, in view of Acker (U.S. 2002/0181376).

Regarding Claim 2, Heo does not teach said at least one predetermined parameter comprises a disc descriptor information (DD) for specifying at least one of an identification of said record carrier, a type of said record carrier, and parameters applying to said record carrier as a whole. However, Acker teaches at least one predetermined parameter comprises a disc descriptor information (DD) for specifying at least one of an identification of said record carrier, a type of said record carrier, and parameters applying to said record carrier as a whole (fig. 7; ¶ [0058] ff.—specifically, Disc type ID is a type of the record carrier, and all of the listed parameters apply to the record carrier as a whole).

Both Heo and Acker teach parameters on a record carrier. It therefore would have been obvious to a person of ordinary skill in the art at the time of invention to substitute the disc descriptor information of Acker for the parameters of Heo to yield the predictable result of having the predetermined parameter comprise a disc descriptor for specifying parameters that apply to the disc as a whole.

Regarding Claim 5, Heo teaches accessing parameters in the navigation area, as described for Claim 1, above, but does not specifically teach said at least one parameter of said navigation area (DN) is accessible by at least one of a logical layer and an application layer of said drive device (30) by using a predetermined access command. However, Acker teaches accessing the navigation area using predetermined access commands (¶ [0040], last 8 lines).

All of the claimed elements were known in Heo and Acker and could have been combined by known methods with no change in their respective functions. It therefore would have been obvious to a person of ordinary skill in the art at the time of invention to combine the accessing the DN with commands of Acker with the parameter access of Heo to yield the predictable result of said at least one parameter of said navigation area (DN) is accessible by at least one of a logical layer and an application layer of said drive device (30) by using a predetermined access command.

Regarding Claim 7, Heo does not teach said access means is arranged to use pointers stored in said navigation area (DN) for partitioning said record carrier into separate areas. However, Acker teaches pointers uses for partitioning the record carrier into separate areas (¶ [0004], lines 16-27—there is a pointer in the lead-in area {part of the navigation area} which points to the lead-out area, which in turn points to the start of the data for a session; sessions are separate areas on the record carrier. “Following the chain” indicates that these location indicators are pointers).

All of the claimed elements were known in Heo and Acker and could have been combined by known methods with no change in their respective functions. It therefore would have been obvious to a person of ordinary skill in the art at the time of invention to combine the

pointers of Acker with the navigation area of Heo to yield the predictable result of using pointers stored in said navigation area (DN) for partitioning said record carrier into separate areas.

Regarding Claim 8, Heo does not specifically teach said access means is arranged to use said navigation area (DN) for determining the location of a starting address number in the logical address space for said record carrier as a whole or for a specific application. However, Acker teaches said access means is arranged to use said navigation area (DN) for determining the location of a starting address number in the logical address space for said record carrier as a whole or for a specific application (¶ [0135]—fig. 15 shows the starting address numbers for the record carrier as a whole and for the Data Zone, which is the address for a specific application).

All of the claimed elements were known in Heo and Acker and could have been combined by known methods with no change in their respective functions. It therefore would have been obvious to a person of ordinary skill in the art at the time of invention to combine the address determination of Acker with the navigation area of Heo to yield the predictable result of having the access means arranged to use said navigation area (DN) for determining the location of a starting address number in the logical address space for said record carrier as a whole or for a specific application.

Regarding Claim 11, Heo teaches said access means is arranged to use said navigation area (DN) for providing room for application specific data (fig. 2, User Area 23 is for application specific data, as shown in col. 4, lines 58-65), but does not specifically teach that the access means is arranged to use said navigation area (DN) for providing pointers into said reserved space. However, Acker teaches said access means is arranged to use said navigation area (DN) for providing pointers into said reserved space (¶ [0004], lines 16-27, as for Claim 7, above).

All of the claimed elements were known in Heo and Acker and could have been combined by known methods with no change in their respective functions. It therefore would have been obvious to a person of ordinary skill in the art at the time of invention to combine the pointers of Acker with the application specific data area of Heo to yield the predictable result of an access means that uses the navigation area for providing room for application specific data and for providing pointers into said reserved space.

Regarding Claim 12, Heo does not teach said access means is arranged to use pointers stored in said navigation area (DN) for applying a seeking function. However, Acker teaches said access means is arranged to use pointers for applying a seeking function (¶ [0121]—the search procedure is a seeking function; the use of pointers is shown in ¶ [0004], lines 16-27).

All of the claimed elements were known in Heo and Acker and could have been combined by known methods with no change in their respective functions. It therefore would have been obvious to a person of ordinary skill in the art at the time of invention to combine the seeking function of Acker with the navigation area of Heo to yield the predictable result of an access means that uses pointers stored in the navigation area for applying a seeking function.

10. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Heo (U.S. Patent 6,901,210), as applied to Claim 1, above, in view of Auwens et al. (U.S. 2002/0131767, hereafter “Auwens”).

Regarding Claim 6, Heo does teaches reading and writing information in the navigation area, as described for Claim 1, above, but does not teach said access means is arranged to provide a caching function for caching at least a part of the information provided on said

navigation area. However, Auwens teaches caching control information recorded by a drive device (¶ [0005], lines 16-22—buffering the control information is a caching function).

All of the claimed elements were known in Heo and Auwens and could have been combined by known methods with no change in their respective functions. It therefore would have been obvious to a person of ordinary skill in the art at the time of invention to combine caching function of Auwens with the information in the navigation area of Heo to yield the predictable result of having the access means arranged to provide a caching function for caching at least a part of the information provided on said navigation area.

11. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Heo (U.S. Patent 6,901,210), as applied to Claim 1, above, in view of Abboud et al. (U.S. Patent 6,636,958, hereafter “Abboud”).

Regarding Claim 15, Heo does not teach said access means is arranged to use a dynamic partitioning for defining areas in said navigation area (DN). However, Abboud teaches said access means is arranged to use a dynamic partitioning for defining areas in said navigation area (DN) (col. 7, lines 1-6).

It would have been obvious to a person of ordinary skill in the art at the time of invention to combine the dynamic partitioning of Abboud with the drive device of and access means of Heo as both are directed towards extending the functionality of drive devices. One would be motivated to make this combination for the purpose of allowing the dynamic adjusting of the partition size to accommodate the variable size of new applications (Abboud, col. 2, lines 43-46).

12. Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heo (U.S. Patent 6,901,210), as applied to Claim 1, above, in view of Senshu (U.S. 2003/0103429).

Regarding Claim 16, Heo does not teach said access means is arranged to apply a volume-based rights management to sessions of an information area (IA) of said record carrier. Senshu (¶ [0014] and [0475]). However, Senshu teaches said access means is arranged to apply a volume-based rights management to sessions of an information area (IA) of said record carrier (¶ [0014] and [0475]).

All of the claimed elements were known in Heo and Senshu and could have been combined by known methods with no change in their respective functions. It therefore would have been obvious to a person of ordinary skill in the art at the time of invention to combine the rights management of Senshu with the access means of Heo to yield the predictable result of a device with access means that applies volume-based rights management to sessions of an information area of the record carrier.

Regarding Claim 17, Heo does not teach said access means is arranged to apply a volume-based, partition-based or fragment-based defect management to sessions of an information area (IA) of said record carrier. However, Senshu teaches said access means is arranged to apply a volume-based, partition-based or fragment-based defect management to sessions of an information area (IA) of said record carrier (¶ [0248] and [0250]).

All of the claimed elements were known in Heo and Senshu and could have been combined by known methods with no change in their respective functions. It therefore would have been obvious to a person of ordinary skill in the art at the time of invention to combine the defect management of Senshu with the access means of Heo to yield the predictable result of a

device with an access means that applies defect management to sessions of an information area of the record carrier.

13. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Heo (U.S. Patent 6,901,210), as applied to Claim 1, above, in view of Rafanello (U.S. Patent 6,792,437).

Regarding Claim 18, Heo does not teach said drive device is a removable drive device for an optical disc. However, Rafanello teaches a drive device that is a removable drive device for an optical disc (col. 1, lines 29-34; also col. 3, lines 60-65).

All of the claimed elements were known in Heo and Rafanello and could have been combined by known methods with no change in their respective functions. It therefore would have been obvious to a person of ordinary skill in the art at the time of invention to combine the removable optical drive of Rafanello with the device of Heo to yield the predictable result of a drive device that is a removable drive device for an optical disc.

14. Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heo (U.S. Patent 6,901,210), as applied to Claim 1, above, in view of Printz et al. (U.S. 2003/0009334, hereafter “Printz”).

Regarding Claim 19, Heo does not teach said drive device comprises a standard interface for storage devices. However, Printz teaches said drive device comprises a standard interface for storage devices ([0046]—the fixed storage is a drive device; PCMCIA, IDE, and CF are all standard interfaces).

All of the claimed elements were known in Heo and Printz and could have been combined by known methods with no change in their respective functions. It therefore would have been obvious to a person of ordinary skill in the art at the time of invention to combine the standard interface of Printz with the drive device of Heo to yield the predictable result of a drive device that comprises a standard interface for storage devices.

Regarding Claim 20, Heo does not teach said standard interface is a PCMCIA, Compact Flash, Newcard, or MMCA interface. However, Printz teaches said standard interface is a PCMCIA, Compact Flash, Newcard, or MMCA interface (¶ [0046]).

All of the claimed elements were known in Heo and Printz and could have been combined by known methods with no change in their respective functions. It therefore would have been obvious to a person of ordinary skill in the art at the time of invention to combine the standard interface of Printz with the drive device of Heo to yield the predictable result of a drive device with a standard interface that is a PCMCIA, Compact Flash, Newcard, or MMCA interface.

15. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Acker (U.S. 2002/0181376), as applied to Claim 21, above, in view of Horie (U.S. 2002/0064111).

Regarding Claim 25, Acker teaches sessions provided in said information area (IA) have a varying physical location (it is inherent that each session be recorded in a different physical location on the record carrier), but does not teach that sessions have varying size. However, Horie teaches that sessions have varying size (fig. 14, step M8; ¶ [0276]—since the device needs to determine the size of the session, sessions can clearly have varying size).

All of the claimed elements were known in Acker and Horie and could have been combined by known methods with no change in their respective functions. It therefore would have been obvious to a person of ordinary skill in the art at the time of invention to combine sessions of varying size of Horie with the record carrier of Acker to yield the predictable result of a record carrier wherein sessions provided in said information area (IA) have at least one of a varying size and a varying physical location.

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. This art includes:

- a. Sasaki et al. (U.S. 2002/0114233) teaches an optical disc with lead-in and lead-out areas, and parameters for specifying the format of data on the disc
- b. Ito et al. (U.S. 2002/0191516) teaches primary volumes and logical volumes on a record carrier, and pointers used in a navigation area
- c. Matsuno et al. (U.S. Patent 7,043,620) teaches an optical disc containing multiple formats, a single lead-in and lead-out area for the disc, and parameters specifying the format of the disc

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hal Schnee whose telephone number is (571) 270-1918. The examiner can normally be reached on Monday-Friday 8:00 a.m. to 4:30 p.m. E.S.T..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew M. Kim can be reached on (571) 272-4182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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